



### + Characteristic

- High precision Jinan Qing marble base and pillar, to ensure high stability and accuracy;
- High precision light pole toothless and fast moving locking device, to ensure the error of return travel is within 2um;
- High accuracy A grade optical linear scale with precision working stage, to ensure the accuracy is within  $3+L/200\text{mm}$ ;
- High definitive detented zoom lens and high resolution color digital camera, to ensure clear image without distortion;
- With programmable formula surface 3-ring 8-division LED Cold Illumination and contour LED parallel illumination and internal intelligent light adjustment, it can automatic control the brightness in the 3-ring 8-division;
- Powerful function iMeasuring2.1 measuring software highly enhance the quality control situation;
- Optional imported contact probe and 3D measuring software which can update it to 3D Measuring machine;
- Optional FexQMS Measuring Data Analysis and Real-time monitoring software which enhance program control and reduce material consumption.



### iFocus Series



Auto Focus



#### + Characteristic

- High precision Jinan Qing marble base and pillar, to ensure high stability and accuracy;
- High precision light pole toothless and fast moving locking device, to ensure the error of return travel is within 2um;
- High accuracy A grade optical linear scale with precision working stage, to ensure the accuracy is within  $3+L/200\text{mm}$ ;
- High definitive detented zoom lens and high resolution color digital camera, to ensure clear image without distortion;
- With programmable formula surface 3-ring 8-division LED Cold Illumination and contour LED parallel illumination and internal intelligent light adjustment, it can automatic control the brightness in the 3-ring 8-division;
- Z-axis equipped with high accuracy linear guide and servo motor control system, realize auto focus measurement, and eliminate the human focus error, enhance measurement accuracy and stability;
- Powerful function iMeasuring2.2 Measuring Software, highly enhance the quality control;
- Optional FexQMS Measuring Data Analysis and Real-time monitoring software which enhance program control and reduce material consumption.

## + Specifications

Mode	iMS-2010F	iMS-2515F	iMS-3020F	iMS-4030F	iMS-5030F
Code#	521-140F	521-150F	521-160F	521-170F	521-180F
Metal Table	408x308mm	408x308mm	458x358mm	608x470mm	708x470mm
Glass Table	306x198mm	306x198mm	356x248mm	456x348mm	556x348mm
X/Y-axis Travel	200x100mm	250x150mm	300x200mm	400x300mm	500x300mm
Dimension(WxDxH)	790x617x1000mm	790x617x1000mm	838x667x1000mm	1002x817x1043mm	1002x867x1043mm
Net Weight	175Kg	175Kg	185Kg	350Kg	380Kg
Z-axis Travel	High-precision linear guide , working travel 200mm				
X/Y/Z-axis Travel	0.0005mm				
X/Y-axis Accuracy	≤3+L/200(um)				
Repeatability	3um				
Base and Pillar	High Accuracy Jinan Qing Marble				
Illumination System (Software Adjustment)	Surface: Stepless Adjustable 3-ring 8-division LED Cold Illumination				
	Contour: LED Parallel Illumination				
	LED Laser Navigation Lights				
CCD	High Resolution 700TV Color CCD Camera				
Zoom lens	6.5:1 High Resolution Detented Zoom Lens				
	Magnification: 0.7X~4.5X; Video Magnification: 30X~190X				
Working Environment	Temperature:19°~24°				
	Humidity:45% ~75%RH				
	Vibration<0.002g, <15Hz				
Measuring Software	iMeasuring 2.2				
Operation System	Support XP, WIN7, WIN8.1, 32/64 operating system				
Language	English, Simplified Chinese, Traditional Chinese, other language versions can be added				

## + Configuration Alternative

Standard Delivery			
Product Name	Code#	Product Name	Code#
2.5D Measuring Software	IM2.2	Video Capture Card	527-130
Contour LED Parallel Illumination	425-100	DELL PC System	581-960
Surface 3R/8D LED Illumination	425-130	AV Video Cable	581-940
Laser Positioning System	581-330	RS232 Data Cable	581-930
6.5X Detented Zoom Lens	421-100	Optical Calibration Block	581-800
HD700TVL Color Camera	484-130	Operation Manual	/

Optional Accessories			
Product Name	Code#	Product Name	Code#
Electronic Zoom Lens	421-140	Rotary Tables RT 2	581-520
12.5X Detented Zoom Lens	421-100	Rotary Tables RT 3	581-530
Coaxial Detented Zoom Lens	421-120	Working Cupboard ST 05	581-650
0.5X Auxiliary Objective	423-050	Swivel Center Support	581-850
2X Auxiliary Objective	423-200	Foot Switch	581-350

## ■ Optical System



**iTouch Series**

**Touch Probe**



### + Characteristic

- High precision Jinan Qing marble base and pillar, to ensure high stability and accuracy;
- High precision light pole toothless and fast moving locking device, to ensure the error of return travel is within 2um;
- High accuracy A grade optical linear scale with precision working stage, to ensure the accuracy is within  $3+L/200\text{mm}$ ;
- High definitive detented zoom lens and high resolution color digital camera, to ensure clear image without distortion;
- With programmable formula surface 3-ring 8-division LED Cold Illumination and contour LED parallel illumination and internal intelligent light adjustment, it can automatic control the brightness in the 3-ring 8-division;
- Imported contact probe and powerful function iMeasuring3.1 3D Measuring Software, highly enhance the quality control;
- Optional FexQMS Measuring Data Analysis and Real-time monitoring software which enhance program control and reduce material consumption.



## + Specifications

Mode	iMS-2010P	iMS-2515P	iMS-3020P	iMS-4030P	iMS-5030P
Code#	521-140P	521-150P	521-160P	521-170P	521-180P
Metal Table	408x308mm	408x308mm	458x358mm	608x470mm	708x470mm
Glass Table	306x198mm	306x198mm	356x248mm	456x348mm	556x348mm
X/Y-axis Travel	200x100mm	250x150mm	300x200mm	400x300mm	500x300mm
Dimension(WxDxH)	790x617x1000mm	790x617x1000mm	838x667x1000mm	1002x817x1043mm	1002x867x1043mm
Net Weight	175Kg	175Kg	185Kg	350Kg	380Kg
Z-axis Travel	High-precision linear guide , working travel 200mm				
X/Y/Z-axis Travel	0.0005mm				
X/Y-axis Accuracy	≤3+L/200(um)				
Repeatability	3um				
Base and Pillar	High Accuracy Jinan Qing Marble				
Illumination System (Software Adjustment)	Surface: Stepless Adjustable 3-ring 8-division LED Cold Illumination				
	Contour: LED Parallel Illumination				
	LED Laser Navigation Lights				
CCD	High Resolution 700TV Color CCD Camera				
Zoom lens	6.5:1 High Resolution Detented Zoom Lens				
	Magnification: 0.7X~4.5X; Video Magnification: 30X~190X				
Working Environment	Temperature:19°~24°				
	Humidity:45% ~75%RH				
	Vibration<0.002g, <15Hz				
Measuring Software	iMeasuring 3.1				
Operation System	Support XP, WIN7, WIN8.1, 32/64 operating system				
Language	English, Simplified Chinese, Traditional Chinese, other language versions can be added				

## + Configuration Alternative

Standard Delivery			
Product Name	Code#	Product Name	Code#
3D Measuring Software	IM3.1	Video Capture Card	527-130
Contour LED Parallel Illumination	425-100	DELL PC System	581-960
Surface 3R/8D LED Illumination	425-130	AV Video Cable	581-940
Laser Positioning System	581-330	RS232 Data Cable	581-930
6.5X Detented Zoom Lens	421-100	Optical Calibration Block	581-800
HD700TVL Color Camera	484-130	Operation Manual	/

Optional Accessories			
Product Name	Code#	Product Name	Code#
Electronic Zoom Lens	421-140	Rotary Tables RT 2	581-520
12.5X Detented Zoom Lens	421-100	Rotary Tables RT 3	581-530
Coaxial Detented Zoom Lens	421-120	Working Cupboard ST 05	581-650
0.5X Auxiliary Objective	423-050	Swivel Center Support	581-850
2X Auxiliary Objective	423-200	Foot Switch	581-350

## ■ Touch Probe



### *CNC-Vision Series*



Auto Position



Auto Focus



Auto Lighting



Auto Measurement

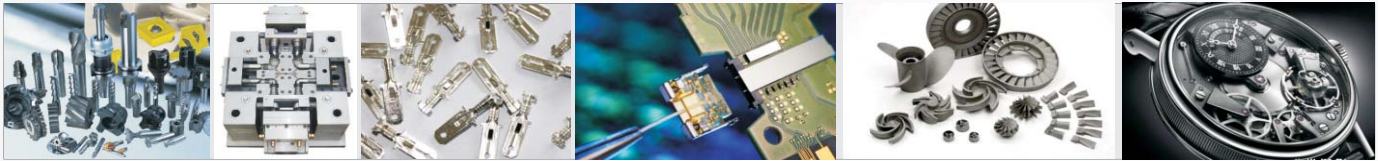


#### **+ Characteristic**

- High precision Jinan Qing marble base and pillar, to ensure high measurement speed, stability and accuracy;
- High precision linear guide, precision grinding stage ball screw and servo motor, to ensure the stability of position accuracy with high speed motion;
- High accuracy grating measuring system and high accuracy working stage, to ensure accuracy within  $\leq 3+L/200\text{mm}$ ;
- High definitive color digital camera and HD continuous zoom lens, to ensure clear and real image without distortion;
- With programmable formula 5-Ring 8-division surface LED cold illumination, contour parallel LED cold illumination and coaxial illumination, with build-in intelligent light adjustment, it can automatically memorize illumination and brightness;
- With powerful function iMeasuring4.0 automatically measuring software, it can program automatic measurement and enhance quality control to a new level;
- Optional imported contact probe and 3D Measuring Software, which help to update the machine to be Fully Auto contact 3D Measuring Machine;
- Optional FexQMS Measuring Data Analysis and Real-time monitoring software which enhance program control and reduce material consumption.

## + Application

Cutting, touch screen, mobile phones, medical equipment, PCB, Film, electronic carrier tape, rubber, clocks, gears, mechanical processing, automobile and motorcycle parts, bearings, motors, precision hardware, tools, electronic components and other industries and research institutes, universities, institutions and enterprises measurement measuring laboratory and production line size detection products.



## + Specifications

2.5D Mode		MVS-3020	MVS-4030	MVS-5040
Code#		523-360	523-370	523-380
X/Y-axis Travel		300x200mm	400x300mm	500x400mm
Load Capacity		25Kg	25Kg	25Kg
Dimension(WxDxH)		1200x780x1650mm	1310x880x1650mm	1420x980x1650mm
Weight		380Kg	400Kg	550Kg
Z-axis Travel		200mm		
X/Y/Z3-axis Linear Scale		High Accuracy Linear Scale, Resolution: 0.0005mm		
Guidance Mode		Precision Linear Guide, Double-track Double Slider Guide		
Operation Mode		Joystick Controller, Mouse Operation, Automatic Detection Program		
Accuracy		X/Y-axis: $\leq 3+L/200(\mu\text{m})$ ; Z-axis: $\leq 4+L/200(\mu\text{m})$		
Repeatability		$\pm 3\mu\text{m}$		
Video System		High Definition 1/3" Color CCD Camera; 6.5X Motorized Coaxial Zoom Lens; Optical Magnification: 0.7X-4.5X; Video Magnification: 22X~145X		
Illumination	Contour	LED Parallel Cold Illumination		
	Surface	Adjustable 0~255 grades 5-ring 8-division Illumination		
Software System		2.5D iMeasuring 4.0 Fully-auto measuring software		
3D Measurement		Optional iMeasuring 4.2 3D Measuring software and imported probe		

## + Configuration Alternative

Standard Delivery			
Product Name	Code#	Product Name	Code#
Fully-auto Measuring Software	IM 4.0	Continuous Detented Zoom Lens	421-161
Calibration Block	581-801	5R/8D LED Illumination	425-141
Motion Controller	526-111	LED Surface Cold Illumination	425-131
Imported 0.5um Linear Scale	581-201	LED Coaxial Cold Illumination	/
Data Processor	564-301	1/3" Color Camera	484-123
CCD Image Navigation	581-331	Video Capture Card	527-131
Joystick	581-871	PC/Monitor	/
Certification	/	Operation Manual	/

Optional Accessories			
Product Name	Code#	Product Name	Code#
Imported MCP Touch Probe	581-721	Manual Coaxial Lens	421-121
Imported laser sensor	581-361	Motorized Coaxial Lens	/
3D Measuring Software	Im 4.2	2X Auxiliary Objective	423-050
Contact Calibration Block	/	0.5X Auxiliary Objective	423-050

### LED Illumination



### 12.5X Detented Zoom Lens





### *Auto Vision Series*



**Auto Position**



**Auto Focus**



**Auto Zoom**



**Auto Lighting**



**Auto Measurement**



#### **+ Characteristic**

- High precision Jinan Qing marble base, beams and gantry mechanical structure, to ensure high measurement speed, stability and accuracy;
- High precision imported guide screw, precision grinding stage ball screw and servo motor, to ensure the stability of position accuracy with high speed motion;
- High accuracy imported non-contact gold plated steel grating measurement system and high accuracy working stage, to ensure accuracy within  $\leq 3 + L/200\text{mm}$ ;
- High definitive imported 1/3 inch color camera and HD automatic continuous zoom lens, to ensure clear and real image without distortion;
- With programmable formula 5-Ring 8-division surface LED cold illumination, contour parallel LED cold illumination and coaxial illumination, internal intelligent light adjustment, it can automatically memorize illumination and brightness;
- With powerful function iMeasuring4.1 automatically measuring software, it can program automatic measurement and enhance quality control to a new level;
- Optional imported contact probe and 3D Measuring Software, which help to update the machine to be Fully Auto contact 3D Measuring Machine;
- Optional FexQMS Measuring Data Analysis and Real-time monitoring software which enhance program control and reduce material consumption.

## + Application

Cutting, touch screen, mobile phones, medical equipment, PCB, Film, electronic carrier tape, rubber, clocks, gears, mechanical processing, automobile and motorcycle parts, bearings, motors, precision hardware, tools, electronic components and other industries and research institutes, universities, institutions and enterprises measurement measuring laboratory and production line size detection products.



## + Specifications

2.5D Mode		Auto Vision 322	Auto Vision 432	Auto Vison 542
Code#		520-111	520-121	520-131
X/Y-axis Travel		300x200mm	400x300mm	500x400mm
Load Capacity		35Kg	30Kg	30Kg
Dimension(WxDxH)		960*820*1680mm	1060*820*1680mm	1200*950*1680mm
Weight		580Kg	650Kg	780Kg
Z-axis Travel		200mm		
X/Y/Z3axis Linear Scale ( 2.5D)		High Accuracy Linear Scale, Resolution: 0.0005mm		
Guidance Mode		Precision Linear Guide, Double-track Double Slider Guide		
Operation Mode		Joystick Controller, Mouse Operation, Automatic Detection Program		
Accuracy		X/Y-axis: $\leq 3+L/200(\mu\text{m})$ ; Z-axis: $\leq 4+L/200(\mu\text{m})$		
Repeatability		$\pm 2\mu\text{m}$		
Video System		Imported 1/3"Color CCD Camera 1.3 million pixel Digital Camera; 6.5X Motorized Coaxial Zoom Lens; Optical Magnification: 0.7X-4.5X; Video Magnification: 22X~145X		
Illumination	Contour	LED Parallel Cold Illumination		
	Surface	Adjustable 5-ring 8-division 256-grades LED Cold Illumination		
Software System		2.5D iMeasuring 3.0 Fully-auto measuring software		
3D Measurement		Optional iMeasuring 3.1 3DMeasuring software and imported probe		

## + Configuration Alternative

Standard Delivery			
Product Name	Code#	Product Name	Code#
Fully-auto Measuring Software	IM 4.1	6.5X Motorized Coaxial Zoom Lens	421-161
Calibration Block	581-801	5R/8D LED Illumination	425-141
Motion Controller	526-111	Contour Parallel LED Illumination	425-131
Imported 0.5um Linear Scale	581-201	LED Coaxial Cold Illumination	/
Data Processor	564-301	Data Processor	484-123
CCD Image Navigation	581-331	CCD Image Navigation	527-131
Joystick	581-871	Operation Manual	/
Certification	/	Certification	/

Optional Accessories			
Product Name	Code#	Product Name	Code#
Imported MCP Touch Probe	581-721	Manual Coaxial Lens	421-121
Imported laser sensor	581-361	2X Auxiliary Objective	423-050
3D Measuring Software	Im 4.2	0.5X Auxiliary Objective	423-050

### LED Illumination



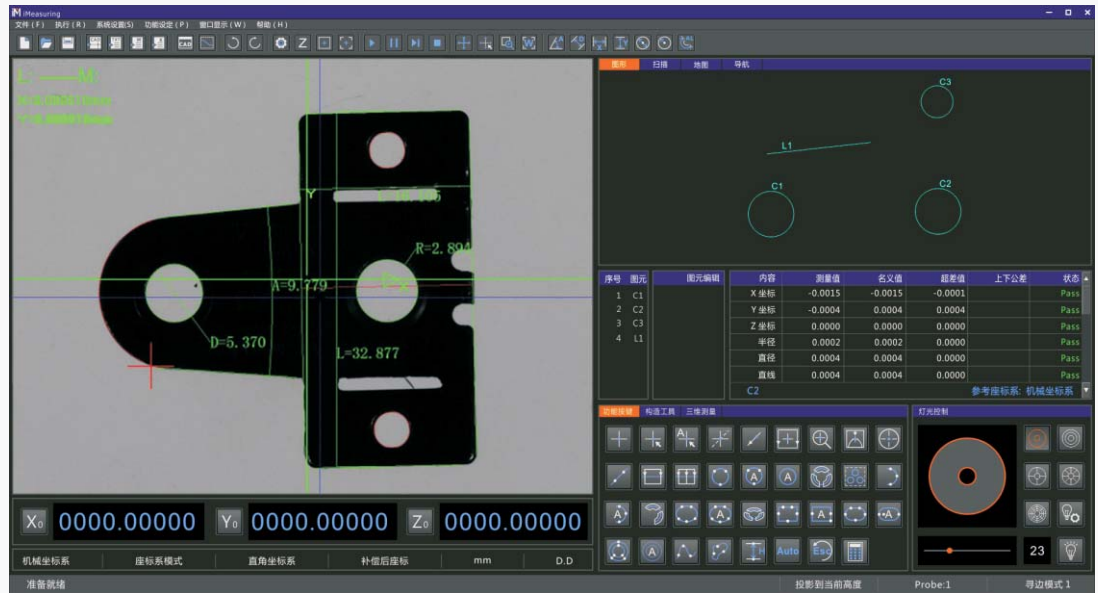
### Motorized Coaxial zoom Lens



# iMeasuring

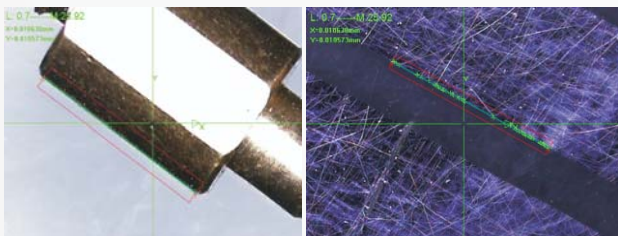
## Introduction

iMeasuring software is a professional multi-sensor measuring software which combined with the developers tenyears experience in the measuring and software research industry. The design principle is friendly operation, powerful function, high accuracy and stability, simple maintenance.

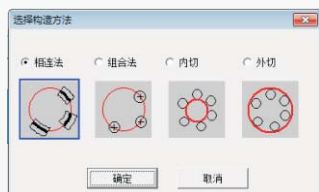


## + Characteristic

- Excellent software architecture design and fully objectoriented, to ensure the software is stable and reliable.
- Professional SPC statistical analysis software connected to measuring software, to realize that the data could automatically export to SPC database without manual operation.
- With powerful edge finder algorithm, which can help to get the edge of the shadow or dark image and ensure highly accuracy.



- It is based on different elements and supplies multiple element construction function such as Translation, rotation, parallel, vertical, mirroring, symmetry, intersection, tangent, etc.

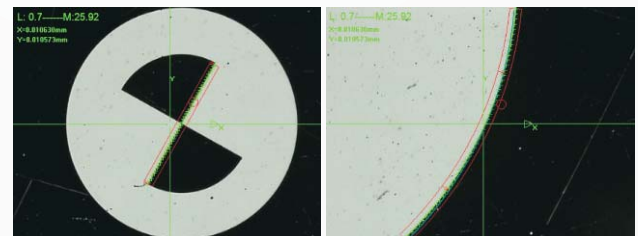


- The measuring data can auto export to TXT, WORD, EXCEL and SPC software database without the third party software conversion and manual operation.

序号	元素	内容	1	2	3	4	5
1	1 C1R1	半径	0.292	0.295	0.292	0.294	0.295
2	2 C1R2	半径	0.296	0.295	0.294	0.295	0.292
3	3 C1R3	半径	0.2921	0.2921	0.2921	0.2921	0.2921
4	4 C1R4	半径	0.2922	0.2922	0.2922	0.2922	0.2922
5	5 C1R5	半径	0.2909	0.2909	0.2909	0.2909	0.2909
6	6 C1R6	半径	0.2919	0.2919	0.2919	0.2919	0.2919
7	7 C1R7	半径	0.2911	0.2911	0.2911	0.2911	0.2911
8	8 C1R8	半径	0.2921	0.2921	0.2921	0.2921	0.2921
9	9 C1R9	半径	0.2933	0.2933	0.2933	0.2933	0.2933
10	10 C1R10	半径	0.2914	0.2914	0.2914	0.2914	0.2914
11	11 C1R11	半径	0.2907	0.2907	0.2907	0.2907	0.2907
12	12 C1R12	半径	0.2918	0.2918	0.2918	0.2918	0.2918

- The software can import "cancel" and "Recover" to make it easier and faster to operate.

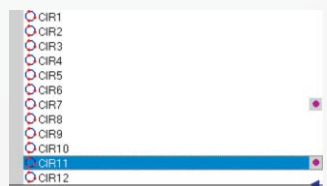
- Support with multiple language, no need to install language pack and change the software which is convenient to local customers.
- The same model of software will be permanent free to update, it can help to reduce other trouble to customer.
- The software could automatically recognize and measure line, circle, arc and other elements.



- The software can show you different intelligent processing functions such as: ultra-limit red alert, ultra-limit pause, failure measuring pause, manual measurement, skip running, forced running, etc.

内容	测量值	名义值	上公差
X坐标	-1.6449	-1.6449	0.0100
Y坐标	0.2627	0.2627	0.0100
半径	1.2695	1.2895	0.0100
直径	2.5391	2.5790	0.0100

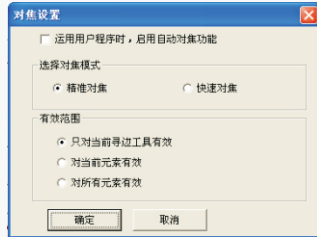
- The software has breakpoint setting function, it can be intelligent switched between manual measurement and auto measurement.



- It can easily measure flatness quickly with powerful laser measuring function, and test the small bumps, pits, V-angle and high-precision surface scanning while video and probe cannot test it.

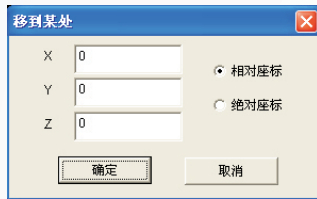
- The software can supply auxiliary light-dimmer indicated function to avoid measuring error caused by light intensity problem and improve measuring accuracy and efficiency.

- The software can supply many function such as accurate focus, quick focus, image height measurement, and the repeatability can reach to 3um (above 2x magnification).

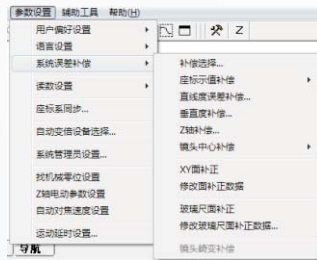


- The software supply multiple running control mode, which make it faster and convenient to position. 1. Operate handle; 2. Click middle key in the image window, long-press right key; 3. Click middle key in the drawing window;

4. Move element list window to the primitive;
5. Click the mouse in the running control window;
6. Click middle key in the scan window;
7. Click middle key in the map window;
8. Input coordinate value.



- The software supply multiple system error correction function, such as: Linear compensation, sector compensation, vertical error compensation, Z axis linear error compensation, lens center offset error compensation, to ensure accuracy can reach to 0.002 mm any place in the XY area.

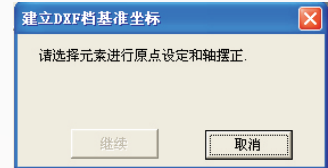


- The software can support to add simple probe based on the video measurement, to realize 3D measurement.

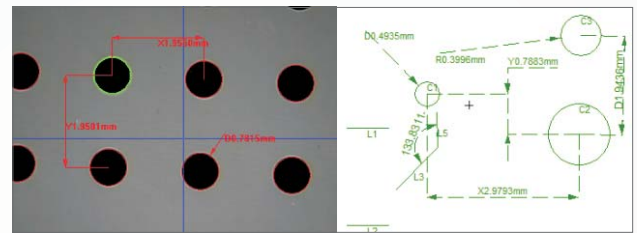


- The software can input viewport navigation, to be convenient to position and get a test place by clicking middle key.

- The software can easily and quickly import and export DXF file and set up coordinate system for auto measurement.



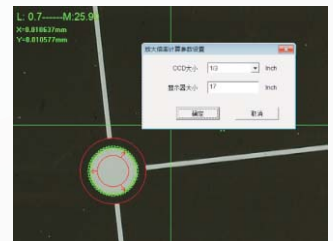
- The image window and drawing window can display the measured elements and marking 2D dimension, which get the result directly.



- The software can photograph mosaic the workpiece to get a large map, then marke and measure it.



- The software can auto calculate and mark the present magnification and video magnification, and display the pixel measurement value.



## Vision Measuring Machine Software Version Number

Version	Video Measurement	Linear Scale Signal	Illumination Control	Manual Probe Measurement	Auto Focus	Auto Stage	Auto Zoom	Auto Probe	Probe Auto Conversion	Suitable Models
IM1.0	√	X	X	X	X	X	X	X	X	VM100
IM1.5	X	√	X	X	X	X	X	X	X	VP300, VP400, PH400, PH600
IM2.0	√	√	X	X	X	X	X	X	X	VMM
IM2.1	√	√	√	X	X	X	X	X	X	IVISION
IM2.2	√	√	√	X	√	X	X	X	X	IFOUCS
IM3.1	√	√	√	√	X	X	X	X	X	ITOUCH
IM3.2	√	√	√	√	√	X	X	X	X	ITF
IM4.0	√	√	√	X	√	√	X	X	X	MVS
IM4.1	√	√	√	X	√	√	√	X	X	AutoVision
IM4.2	√	√	√	√	√	√	√	√	X	TouchVision
IM4.3	√	√	√	√	√	√	√	√	√	AutoTouch
IM6.0	√	X	√	X	X	X	X	X	X	IVS-30/60/80/160/240